

PATENT

Docket No. RSW920030014US1  
(356928.00017)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTORS: **David A. Selby** Confirmation No. **2671**  
APPLICATION NO. **10/674,188**  
FILED: **September 29, 2003** Examiner: **D. Lastra**  
CASE NO. **RSW920030014US1** Group Art Unit: **3688**  
  
TITLE: **INCENTIVE-BASED WEBSITE ARCHITECTURE**

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Commissioner for Patents  
MAIL STOP APPEAL BRIEF-PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Attention: Board of Patent Appeals and Interferences**

**APPELLANTS' BRIEF**

This brief is in furtherance of the Notice of Appeal filed in this case on June 3, 2009. The Commissioner is authorized to charge the fee for filing this Appeal Brief to Deposit Account No. 09-0457.

**1. REAL PARTY IN INTEREST**

The present application is assigned to International Business Machines Corporation, having its principal place of business at New Orchard Road, Armonk, New York 10504. Accordingly, International Business Machines Corporation is the real party in interest.

**2. RELATED APPEALS AND INTERFERENCES**

The appellant, assignee, and the legal representatives of both are unaware of any other appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**3. STATUS OF CLAIMS**

- A. Claims canceled: 1-8
- B. Claims withdrawn from consideration but not canceled: None
- C. Claims pending: 9-22
- D. Claims allowed: none
- E. Claims rejected: 9-22
- F. Claims appealed: 9-22

Appealed claims 9-22 as currently pending are attached as the Claims Appendix hereto.

**4. STATUS OF AMENDMENTS**

A Reply under 37 C.F.R. §1.111 was filed on July 8, 2008; claim amendments were made. In response, the Examiner issued a non-final Office Action on September 9, 2008. A Reply under 37 C.F.R. §1.112 was filed on December 9, 2008, and claim amendments were

made. In response, on April 3, 2009, the Examiner issued the final Office Action being appealed herein.

A Reply under 37 C.F.R. §1.116 was filed on June 3, 2009; claim amendments were made, and a Notice of Appeal was filed concurrently.

## 5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 9: A system for influencing the actions of users of an interactive content-delivery system, comprising: means for identifying probabilities of selection with respect to all selections offered by said interactive content-delivery system, and designating certain of said selections as low probability selections based on the identified probabilities (*page 5, lines 8-13; Fig. 1, steps 102 and 104; Fig. 3*); and means for presenting users of said interactive content-delivery system with incentives based upon said probabilities, whereby said low probability selections receive higher-value incentives than selections having higher probability of selection than said low probability selections (*page 5, line 14 to page 6, line 8; Fig. 1, steps 106 and 108*). (*Means to perform the functions claimed in claim 9 are described at page 10, line 10 to page 11, line 16.*)

Claim 16: A computer program product for influencing the actions of users of an interactive content-delivery system, comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising: computer-readable program code that identifies probabilities of selection with respect to all selections offered by said interactive content-delivery system, and designating

certain of said selections as low probability selections based on the identified probabilities (*page 5, lines 8-13; Fig. 1, steps 102 and 104; Fig. 3*); and computer-readable program code that presents users of said interactive content-delivery system with incentives based upon said probabilities, whereby said low probability selections receive higher-value incentives than selections having higher probability of selection than said low probability selections (*page 5, line 14 to page 6, line 8; Fig. 1, steps 106 and 108*).

The present invention applies gaming theory and well-understood sales processes and techniques to allow the operator of an interactive sales medium to control what is displayed to a user of the medium in a manner that signals their intentions (e.g., looking for a lower price, looking for a particular incentive, etc.) so that the “strategies” being used by the consumer can be identified and exploited. Specifically, the claimed invention identifies the probabilities of selection for all possible selections on the website, and designates certain of the selections as low-probability selections. The low-probability selections are then assigned higher-level incentives than those that are higher probability selections.

In a preferred embodiment, “negative incentives” (e.g., the offering of an incentive that is identified to the user as one that will be withdrawn if not acted upon within a predetermined amount of time) are presented as further encouragement for a user to take a particular pathway.

**6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Applicant requests the Board to review the following rejection:

1. Rejection of claims 9-22 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0062245 to Niu in view of U.S. Patent Application Publication No. 2001/0014868.
2. Rejection of claims 14 and 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0062245 to Niu in view of U.S. Patent Application Publication No. 2001/0014868.

**7. ARGUMENT**

**Claims 9-22 as a Group**

KSR (*KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007) requires that an Examiner provide “some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness.” Further, an Examiner must “identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does,” In addition, the Examiner must make “explicit” this rationale of “the apparent reason to combine the known elements in the fashion claimed,” including a detailed explanation of “the effects of demands known to the design community or present in the marketplace” and “the background knowledge possessed by a person having ordinary skill in the art.”

These requirements have not been met. With respect to Niu, nowhere in Niu is there any discussion or disclosure of going through *each selection possibility* on an interactive content-delivery system (i.e., each pathway available on a website), identifying the probabilities of selection of *each selection possibility*, designating certain of the selections as low probability selections, and then presenting higher incentives to users who purchase the lower-probability selections. Applicant acknowledges that Niu looks at calculated probabilities that a user will (a) leave a website or (b) make a purchase on the website, to decide whether or not to generate real-time promotions to the user, and that Niu also uses the frequency of visits and time of visits by the user to determine if a promotion should or should not be presented to the user (see paragraph [0043] of Niu). This “leave or purchase” probability is based solely on keystroke data of the user and is not at all based on analyzing probability for all possible selections as is claimed. While this may be helpful and remotely similar to the concept claimed herein, there is in no way any teaching or suggestion of “identifying probabilities of selection with respect to all selections offered by said interactive content-delivery system” as is claimed herein. This claimed feature is neither taught nor suggested by Niu, Herz, nor a combination of the two.

As the Examiner admits, Niu also does not teach the claimed aspect of “designating certain of said selections as low probability selections based on the identified probabilities” nor “whereby said low probability selections receive higher-value incentives than selections having higher probability of selection than said low probability selections”. The Examiner asserts that Herz teaches that this is an “old and well known” concept.

First, as noted above, Herz fails to supply the claimed identification of probabilities of selection with respect to all selections offered by the content delivery system, a feature also lacking

in Riu. Thus, further consideration of Herz is unnecessary. However, addressing the Examiner's statement characterizing Herz, Applicant submits that Herz contains no teaching or suggestion of examining *probabilities of selection* and thus cannot properly be characterized as *designating* certain selections as low probability nor assigning higher incentives to low-probability selections. At best, the portion of Herz relied upon by the Examiner can be characterized as teaching the providing of generous offers to incent any customer to purchase something, or to change purchasing patterns (e.g., buy economy size instead of regular size). Nowhere does Herz discuss analyzing the probability that a particular user will or will not make a particular selection and then, based on that analysis, assign higher incentives to low-probability selections.

For the above reasons, the present invention patentably defines over Niu, Herz, and a combination thereof; thus, claims 9-22 (i.e., the independent claims as well as the claims depending therefrom) are in condition for allowance.

**Dependent Claims 14 and 21 Separately - Negative Incentives**

Applicant argues claims 14 and 21 separately from claims 9-22 as a group, for the following reasons. These claims introduce “negative incentives” into the claims.

The Examiner refers to paragraph [0115] of Niu and asserts that the fact that Nui doesn’t “offer a buyer a discount as said buyer does not need an incentive to buy” is a negative incentive. This is incorrect. At best, not offering any incentive might be characterized as a “neutral incentive” because it does not influence a potential buyer in either direction; it certainly is NOT a negative incentive. A claimed negative incentive of the present application is clearly defined as actually taking an offer/incentive *away* from the user as time progresses, incenting the user to, for example,

make the purchase now before the value of the deal is *reduced* (see, for example, page 4, line 19 through page 5, line 7 and page 9, line 11 through page 10, line 9). Similarly, an “upsell incentive” as described in Niu is not a negative incentive – it is simply an opportunity by the seller to try to sell the potential buyer something with a higher margin than they were originally shopping for. It is not negative in any sense of the word. In the present invention, a negative incentive reduces the amount of an incentive as the potential buyer delays purchasing, tempting the potential buyer to make a purchase before the incentive is reduced to nothing. It is essentially a “punishment” for failing to act quickly.

For the above reasons (in addition to those presented with regard to claims 9-22), claims 14 and 21 patentably define over Niu, Herz, and a combination thereof; thus, claims 14 and 21, and all claims depending therefrom, are in condition for allowance.

## **8. CONCLUSION**

For the foregoing reasons applicants respectfully request this Board to overrule the Examiner's rejections and allow claims 9-22.

Respectfully submitted:

July 28, 2009

Date

/Mark D. Simpson/

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## **CLAIMS APPENDIX**

### **CLAIMS INVOLVED IN THIS APPEAL:**

Claims 1 to 8 (Cancelled)

9. (Previously presented) A system for influencing the actions of users of an interactive content-delivery system, comprising:

means for identifying probabilities of selection with respect to all selections offered by said interactive content-delivery system, and designating certain of said selections as low probability selections based on the identified probabilities; and

means for presenting users of said interactive content-delivery system with incentives based upon said probabilities, whereby said low probability selections receive higher-value incentives than selections having higher probability of selection than said low probability selections.

10. (Original) The system of claim 9, wherein said means for identifying includes at least:

means for estimating probabilities of selection for each possible selection offered by said interactive content delivery system if historical user data for said interactive content delivery system is unavailable.

11. (Original) The system of claim 10, wherein said means for identifying further comprises at least means for analyzing historical user data for said interactive content delivery system to identify probability of selection based on said historical user data.

12. (Original) The system of claim 11, wherein said means for analyzing historical user data comprises at least means for performing historical analysis of paths taken by users who have not been presented with incentives.

13. (Previously presented) The system of claim 11, wherein said means for analyzing historical user data is continually updated with new historical user data obtained after users of said interactive content-delivery system have been presented with incentives.

14. (Original) The system of claim 11, wherein said incentives are selected based on gaming theory and include both positive and negative incentives.

15. (Original) The system of claim 14, wherein said interactive content-delivery system comprises a web-based e-commerce site.

16. (Previously presented) A computer program product for influencing the actions of users of an interactive content-delivery system, comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that identifies probabilities of selection with respect to all selections offered by said interactive content-delivery system, and designating certain of said selections as low probability selections based on the identified probabilities; and

computer-readable program code that presents users of said interactive content-delivery system with incentives based upon said probabilities, whereby said low probability selections receive higher-value incentives than selections having higher probability of selection than said low probability selections.

17. (Original) The computer program product of claim 16, wherein said computer-readable program code that identifies probabilities of selection includes:

computer-readable program code that estimates probabilities of selection for each possible selection offered by said interactive content delivery system if historical user data for said interactive content delivery system is unavailable.

18. (Original) The computer program product of claim 17, wherein said computer-readable program code that identifies probabilities of selection further comprises computer-readable program code that analyzes historical user data for said interactive content delivery system to identify probability of selection based on said historical user data.

19. (Original) The computer program product of claim 18, wherein said computer-readable program code that analyzes historical user data comprises at least computer-readable program code that performs historical analysis of paths taken by users who have not been presented with incentives.

20. (Previously presented) The computer program product of claim 18, wherein said computer-readable program code that analyzes historical user data is continually updated with new historical user data obtained after users of said interactive content-delivery system have been presented with incentives.

21. (Original) The computer program product of claim 18, wherein said incentives are selected based on gaming theory and include both positive and negative incentives.

22. (Original) The computer program product of claim 21, wherein said interactive content-delivery system comprises a web-based e-commerce site.

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**EVIDENCE APPENDIX**

No additional evidence is presented.

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**RELATED PROCEEDINGS APPENDIX**

No related proceedings are presented.